

New Jersey: Planning and Action for a Low Carbon Future



June 8, 2007

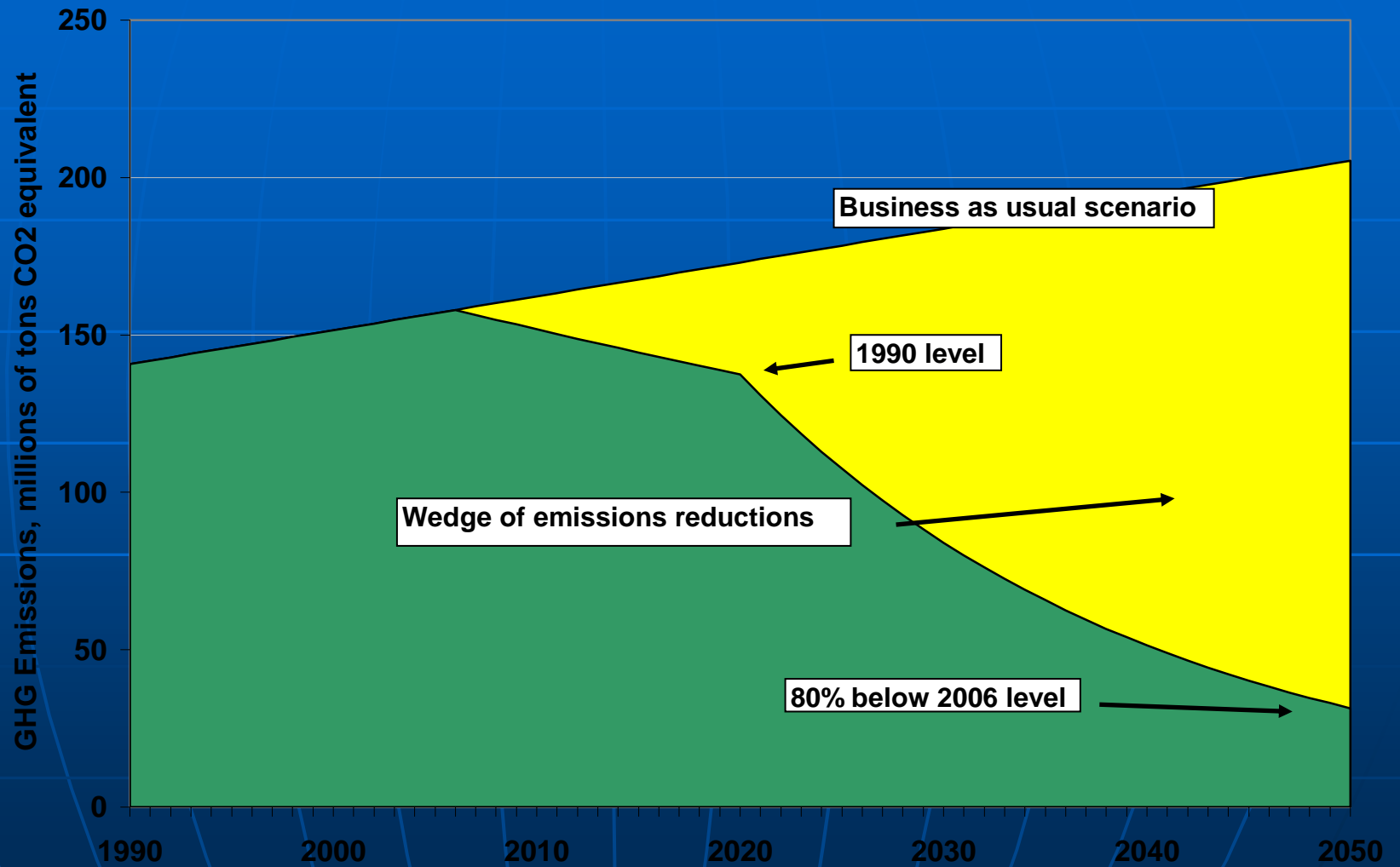
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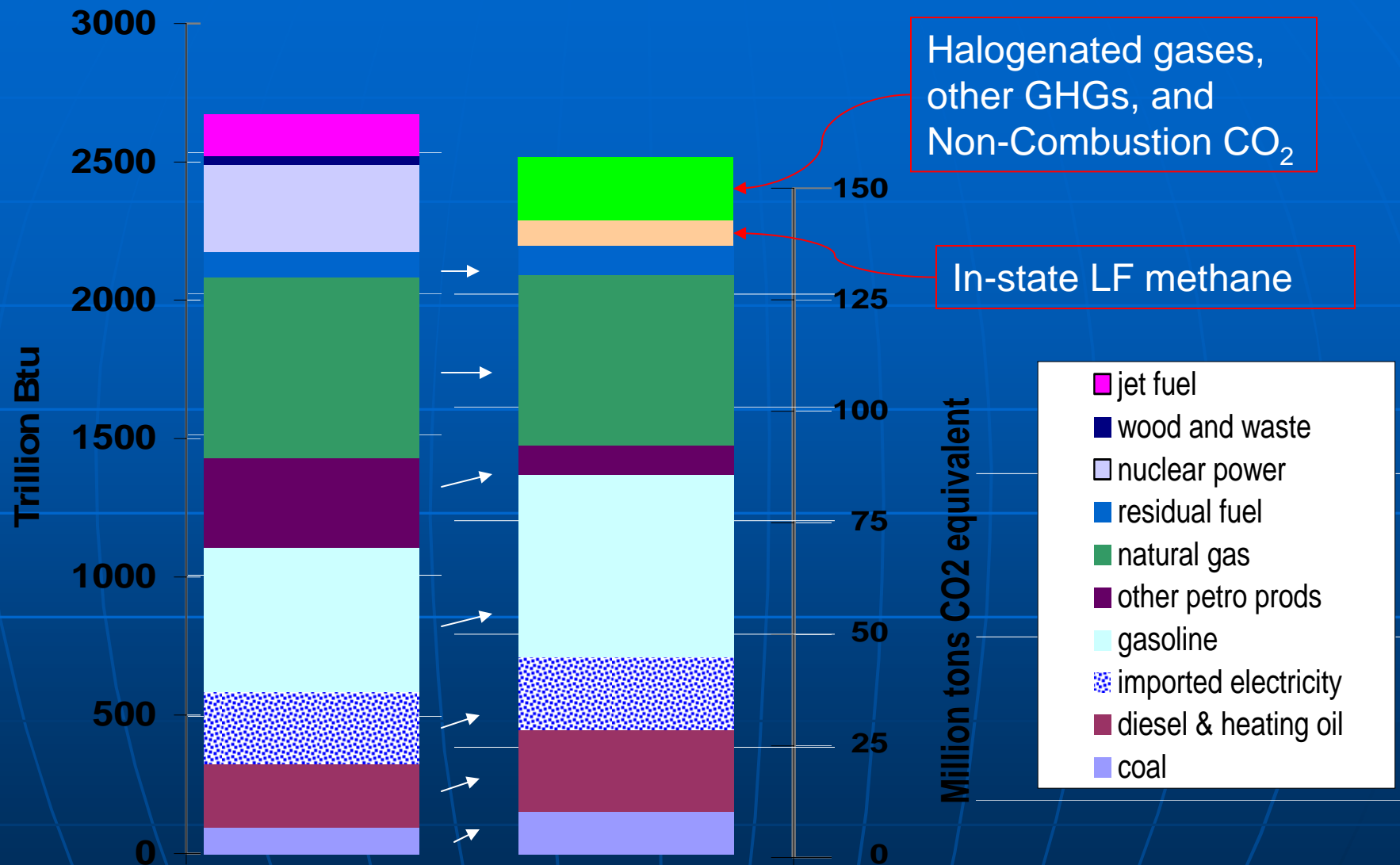
Goals for the Day

- ✓ To examine the inventory estimates and forecasts
- ✓ To review proposed potential climate measures for acceptability
- ✓ To generate new ideas for consideration
- ✓ To prioritize potential measures for future analysis and development
- ✓ To discuss next steps

New Jersey Greenhouse Gas Emissions and Goals



Energy to Greenhouse Gas Conversions; NJ



Big Opportunities

- Expand RGGI to other major sectors
NJ or regionally
- Implement a Low Carbon Fuel Standard
Create a market-based system for low carbon or zero carbon fuels
- Phase out Highly Warming Chemicals
NJ or with other states, regionally or nationally
- Implement an aggressive transportation and land use planning portfolio
- Include carbon and its cost in all state policies

Biggest Opportunities (cont.)

- Food: A **New** Garden State Initiative
- Freight Movement Planning
- Port Electrification
- Municipal Water and Waste Water Efficiency Program
- Aviation Sector: Newark Airport as a Model
- Home Heating/Water System Upgrades expanded from EMP
 - Upgrade buildings at time of transfer
- Structural changes in the price of carbon

Expand RGGI to all Sectors

- Reduce emissions by expanding RGGI to be economy wide including sectors such as cement, steel, etc.

- Could be parallel to AB32

Consider observing the Western States Process to link RGGI states and their all sector coverage

Low Carbon Fuel Standard

Consider the Low Carbon Fuel Standard

- Work with CA
- Reach out to rest of the northeast
- Discuss pros and cons

Phase-out Use and Sale of Highly Warming Gases

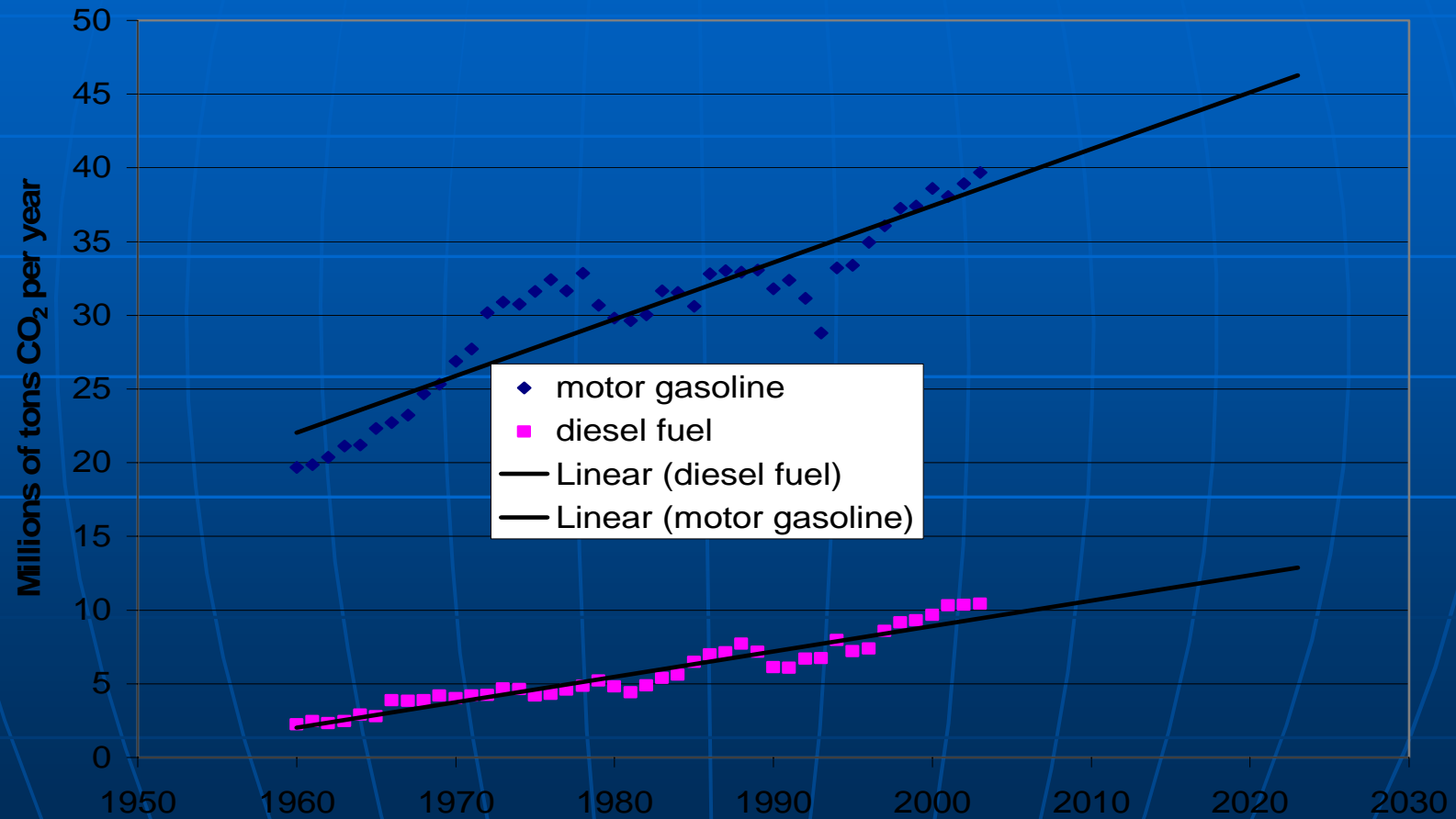
- Set date certain for phase-out in NJ
- And could use P² programs and expand recycling of these products in the interim
- Create new R&D programs in state
- Expand market by encouraging other US states/provinces to consider and argue to strengthen the Montreal Protocol with consideration of the warming effects more explicitly.
 - Cost as low as 50 cents per ton (CO₂ equivalent) by accelerating the phase-out of HCFCs

Transportation Background

- Providing public services is more energy-intensive and more expensive under sprawl.
- Center for Clean Air Policy suggests future emissions down by 5 - 20% from smart growth & transit improvements alone.
- Can save 5-25% of transportation energy with smarter growth patterns.
- Need to work with municipalities and regional as they make decisions.
- New Jersey has been a leader on these issues in the past.

Transportation Clearly is an Opportunity

NJ CO₂ Emissions from Transportation; diesel fuel and gasoline



Transportation Portfolio for a Lower Carbon Future

- Fix-It-First: recycle your infrastructure
- Transportation Demand Management
- New Suite of Transit Measures
- Prioritize all capital funding for lower embodied energy projects (schools, highways, transit, housing, development funding)
- Smart Growth Zoning: do the genetic engineering
- Grant Coordination w/ Energy Efficiency Criteria
- Interagency Teams to Implement

Policies for Improving VMT Efficiency (E^2 for transport)

- Roadway efficiency through pricing and transportation demand management.
- Land use planning and development planning (so people don't need a car for many trips).
- Transit improvements: new technology and more dedicated funding streams

Policies for Improving VMT Efficiency (E^2 for transport)

- Provide incentives for vehicle sharing (right vehicle for the trip)
- Boost knowledge of road conditions in real time (can also have a latent demand kickback)
- Implement new telecommuting options (regional office centers)
- Require cash-out for parking

Energy Efficient Transportation Choices

- Require disclosure of the CO₂ impacts of transportation and land use decision-making whenever state funds are spent.
- Implement Vehicle Feebates
- Preferential Parking for high efficiency vehicles and car sharing at all state facilities and places funded with state funding
- Boost Public Transit Services and roll back Fares (need to make up fare shortfall)
- Demonstration projects to reduce household travel needs (Small grants program for neighborhood programs and personal footprint efforts by affinity groups)

Transportation Demand Management Program

- Employer-Based Commute Options
 - Guaranteed Ride Home Program
 - Rideshare Matching Program
 - Alternative Scheduling
 - Telework/ telecommute
 - TDM Marketing
 - Transit Allowance
 - Insurance Code Review (ie. carpools are not limos)

Follow the Money

A new approach for smarter growth

- Billions of dollars in state capital funding can be brought into alignment with a smart growth/low carbon agenda
- Coordination = efficiency
- Transportation plan: investments in infrastructure predicated on development along transit corridors first.

Potential Screen for *all* Funding Decisions - Does this proposed project:

- Redevelop first/ Fix It First?
- Concentrate development?
- Offer Equity to all citizens?
- Restore & enhance the environment?
- Conserve natural resources?
- Expand housing opportunities?
- Provide transportation choices?
- Increase job opportunities?
- Foster sustainable businesses?
- Plan regionally?

Zoning: changing the DNA of development

- Lift outdated prohibitions on mixed-use, multi-family, accessory apartments, housing over retail
- Allows for the concentration of development around **existing infrastructure**, saving money
- **Respond to consumers** who want an option of walking for simple errands, driving less, spending less on gas
- Made the **traditional village** legal again (ie Princeton)
... and **steers development away** from woods and meadows and farmland

Helping cities and towns make Zoning more flexible

- Encourage new zoning districts to allow greater density, with an affordability component
- Districts must be in town centers, downtowns, near transit, on vacant industrial land or other appropriate sites
- In MA, for example, a bounty is offered of \$3,000 per new home and up to \$600,000 in lump-sum payments plus funding to offset costs of educating kids that move into the district.

Redevelop First

- Policy to reuse and rehabilitate existing infrastructure rather than construct new infrastructure in undeveloped areas.
- Preference for redevelopment of brownfields, preservation and reuse of historic structures and rehabilitation of existing housing and schools.
- Align sewer and water funds with the Low Carbon Agenda

Transit-oriented Development Bond Program



- Create a larger transit-oriented development bond program to support residential and mixed-use development within a quarter-mile of transit stations
- Money to be used for housing, parking, bicycle and pedestrian amenities
- In MA, this program stimulated more than 25 new projects in first 2 years. NJ program could be even more robust.

Align Affordable Housing Programs with a Low Carbon Agenda



- Housing funding sources also use these criteria
- Projects who locate in smart growth zones, gain access to these funding categories
- Sites must use land more efficiently
- Must incorporate higher energy standards, renewables and other sustainable features (green roofs, trees left in place, etc.)

The New Garden State Initiative

- Next to our cars, our refrigerators are the biggest carbon “user” in the house
- Big push for more locally grown food
- Back to the future
- Farmers Markets and co-ops to get more support and explicit carbon messaging.
- Accounting issues

Intelligent Transportation Systems

- Signal Synchronization
- Express EX pass Toll Collection
- Ramp Metering
- Incident Management
- Construction Zone Management

The New Transit Investment Strategy

- TransHudsonExpress Tunnel
- Expand existing transit services
 - Northern Branch diesel multiple unit
 - Meadowlands Spur
 - Bus Shoulders on Rte 9
 - Bayonne 8th Street Hudson-Bergen Light Rail
 - Lackawanna Cutoff- Andover
 - Bergen Passaic
 - Expand Service on Existing Transit Corridors

Aviation and Ports Clean-up

On May 17th, the Port Authority announced its intention to make reductions in emissions consistent with the Governor's goals; to reduce emissions at the authority's airports and seaports by 80 percent over time.

The Port Authority committed to develop a detailed plan (within two years) to reduce its carbon emissions through efficiency, renewable energy and renewable energy credits. Some of the ideas in their announcement included:

- Encouraging planes to use docking stations instead of idling on the airfield (electrification).
- Promoting large planes to carry more passengers on a single airplane.
- Using geothermal and renewable energy (wind, solar and other alternative fuel ramp-side equipment at seaports and airports).

Aviation and Ports Clean-up

In addition, the Port Authority has committed to examine the following transportation measures:

- Cashless tolls and peak-hour pricing to reduce the rush-hour traffic at crossings between New York and New Jersey.
- Plans to switch its vehicle fleet to 100 percent hybrid or better
- Plans to implement sustainable design standards in all major building projects.

Aviation and Ports Clean-up

- The State could also work cooperatively with the Port Authority to:
 - Introduce market-based programs to allow for reductions at the lowest cost through NOx and CO2 Caps which would require an offsetting of emissions for landing planes

This voluntary program would involve having funds passed on through user fees to the airlines for the cost of running the airfield.

Expand recycling on-airport (and for all incoming flights)

Long Term Utility Signals

Bar utilities from signing long-term contracts with coal-fired power plants that produce excessive greenhouse gases without considering Carbon.

Watergy Program

- Municipal Water Efficiency Program
 - Drinking
 - Waste Water
- Could reduce Municipal energy use by 10-15%
- Incentives with water grants and existing state funding priorities

Embedding the Cost of Carbon in Transactions where possible

- Thematic commitment in this plan for 2020 and 2050.
- Sending price signals to the market for all long-term decisions:
 - RGGI for the electric sector, and then start building these prices in as an organizing principle of the administration.

Key to Success for Lowering Carbon Rowing in the Same Direction

- Target State Capital Funds to Give Priority to Lower Carbon Approaches
- Put the communities with good plans/projects at the head of the funding queue.
- Make it clear that all NJ agencies are rowing together on this one.



Next Steps

- Feedback from you - and more ideas
- Setting priorities for analysis - offering feedback to the DEP.
- Closing the gap
- Analyzing ideas
 - Quantifying reductions
 - Assessing implementation
- Stakeholder mtg:
9 a.m. - noon on July 26

